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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/535,859	03/27/2000	Larry M. Ernst	BLD990050US10036.0060	3885
24033	7590	09/09/2004	EXAMINER	
KONRAD RAYNES & VICTOR, LLP			GRANT II, JEROME	
315 S. BEVERLY DRIVE			ART UNIT	
# 210			PAPER NUMBER	
BEVERLY HILLS, CA 90212			2626	

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/535,859

Applicant(s)

ERNST

Examiner

Jerome Grant II

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17,20-28 and 33-36 is/are allowed.
- 6) ☒ Claim(s) 1-7, 15, 16, 18, 19, 21, 29-32, 34 and 39-52 is/are rejected.
- 7) ☒ Claim(s) 8-14, 37 and 38 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

JEROME GRANT II  
PRIMARY EXAMINER

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Detailed Action

1.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 39-52 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification is devoid of a teaching to an **article of manufacture**. Moreover, there is no manufacturing processing taught anywhere in the specification that would lead one of ordinary skill in the art to a making of an article by the alleged manufacture.

2.

Claims 39-52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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It is unclear what the article of manufacture is and the manufacturing process carried out to achieve that specific article. Correction is required.

3. As best can be determined in view of the 112 rejections above, the following rejections are made to the new claims 39-52 in view of the content of the body of the new claims.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 5, 7, 15, 16, 18, 19, 21, 39, 40, 42, 43 and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Bacon.

With respect to claims 1 and 39, Bacon teaches a method for reducing toner in an image comprised of raster pel data comprising: a controller 80 for determining surrounding pixels (W, Y, Z and V) of subject pels X (1-4); for each subject pel X(1-4) generating a position information (on or off) indicating an alignment of the sub-pel region in the pel, wherein the position information is used to position the sub-pel region

produced by the sub-pulse width power in the pel (determination of which of the 4 sub pels will be in an on position).

With respect to claims 2, 16 and 40, Bacon teaches wherein toner is attached to the charged sub pel (i.e., if sub region designated as a print region).

With respect to claims 4, 18 and 42, Bacon teaches each subject pel, determined whether the pattern of the surrounding pels indicates that the subject pel is in a black filled region (see figure 3) wherein the position information is used to align the sub-pel regions x (1-4) in the subject pel in the black filled region to adjacent pels of the subject pels (W,Y,V,Z) regions.

With respect to claims 5, 19, and 43, this condition is met if X1 and X4 are on or off together and X2 and X3 are opposite in position to that of X1 and X4.

With respect to claims 7, 21 and 45, Bacon teaches surrounding pels (WYZV) include pels from the scan line as claimed wherein the subject pel is the black filled region, see figure 3. if a plurality of surrounding pels are all black (pixels W,Y,V,Z are arbitrarily on.

With respect to claim 15, Bacon teaches a system for reducing toner comprising: means (controller 80) for determining surrounding pels (WYVZ) of subject pels X(1-4) for each subject pel X(1-4) generating a position information (on or off) indicating an alignment of the sub-pel region in the pel, wherein the position information is used to position the sub-pel region produced by the sub-pulse width power in the pel (determination of which of the 4 sub pels will be in an on position).

4.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 29-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Seto.

With respect to claim 29, Seto teaches a computer readable transmission medium RAM including a LUT 35 for reducing toner in an image comprised of raster pel data (see col. 13, lines 44-49), comprising: a plurality of output values (8 distinct pulse widths) wherein one output value is provided for at least one pattern of pels including a subject pel, wherein the output value is substituted for the subject pel (M-Dot), see also figure 34, and wherein the output value comprises a sub-pulse width power (1159) see

figure 33, to charge a sub-pel region within the subject based on position information (m+1) Dot indicating a pel alignment. See different sub-pel regions affected by varying pulse widths.

With respect to claim 30, see figure 14B which shows the affect of the charge for use of toner.

With respect to claim 31, Seto teaches reducing radiation (toner charges) as taught at col. 9, line 12 and col. 20, lines 19-24, 34-38 and 47-55. Note that changes in phase of the clocks affect the amount of charge used to adhere the toner.

With respect to claim 32, Seto teaches wherein the output values for subject pels (according to figure 14b) in a black filled region include position information (m+11) dot aligns the sub-pel region in the subject pels (figure 14B) in the black filled region to be adjacent (as identified by the examiner in figure 14B) to the sub-pel region in one adjacent subject pel in the filled region. See figure 14B for adjacent pixels being filled with the black region.

5.

#### Claims Objected

Claim 3, 6, 8-14, 37 and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 41, 44 and 46-52 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. (Assuming support for this limitation existed at the time of filing of the patent application.

6. Claims Allowed Based On Amendment

Claims 17, 20-28 and 33-36 are allowed.

7. Examiner's Remarks

At page 14 of the applicant's remarks, applicant contends that claims 1 and 15 require reducing toner in an image. However, upon further view, there is no language in the claims that either directly or indirectly recite reduction of toner in an image. Hence, applicant is arguing limitations which are not supported in the claim. This argument is not persuasive. Applicant further argues that Bacon does not determine sub-pel values based on surrounding pels. The examiner respectfully disagrees. The surrounding pel values of W, Y, Z and V will have "on" or "off" values, logic zero or one. Hence, this teaching reads on the claimed invention.



At page 15, applicant argues that Bacon does not address determining if a pixel is in a black fill region. Figure 3 shows a chart of two bit expressions corresponding to the surrounding pixels being either white or black. For example logic value 11 is 0-25% reflectance which implies the pixel is substantially black whereas logic value 00 implies a reflectance of 75-100% which implies the pixel is white. Hence, one can predict the presence of black pixels as its neighbors with respect to the attention pixel X by examining the two bit code of the neighboring pixels.

With respect to applicant's argument at page 16, applicant argues that with respect to claim 29, Seto does not address the 8 distinct pulse widths. In response, the examiner argues that claims 29 does not positively recite the use of any number of pulse widths. Applicant appears to be arguing limitations which are not supported.

With respect to applicant's argument at page 17 5<sup>th</sup> paragraph, applicant argues, that Seto does not discuss clusters around the pixel to reduce electromagnetic charges. The examiner opines that this limitations is addressed in that Seto reduces radiation (toner charges ) which is disclosed at col. 9, line 12 and col. 20, lines 19-24, 34-38 and 47-55. The electromagnetic charges are that required to recording images on the charged recording device (such as a drum). Applicant does not traverse the examiner's specific references and rational in formulating his rejection.

In conclusion the examiner has provided specific rational and support for the rejection and sustains the rejection. If there remains any questions, applicant is invited to contact the examiner at the telephone number below.

8.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

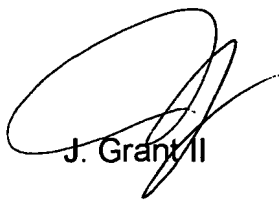
9.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerome Grant II whose telephone number is 703-305-4391. The examiner can normally be reached on Mon.-Fri. from 9:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A. Williams, can be reached on (703) 305-4863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

JEROME GRANT II  
PRIMARY EXAMINER



J. Grant II